

CLAIMS

What is claimed is:

1. An apparatus comprising:
a housing,
a cartridge including a spray tip removably disposed within said housing;
wherein a medium residing in the cartridge is dispensed through the spray tip
when the cartridge is pressurized.
2. The apparatus of claim 1, further comprising a motor coupled to a pump,
said pump is coupled to the housing to supply one of air and gas stream to the
spray tip.
3. The apparatus of claim 2, further comprising at least one battery coupled
to the motor to power the pump.
4. The apparatus of claim 1, wherein the cartridge and the spray tip are
molded together as one unit.
5. The apparatus of claim 1, wherein the cartridge is a replaceable cartridge.
6. A cartridge comprising:
a nozzle disposed at one end of the cartridge;
an inner chamber to hold a medium to be dispersed from the cartridge;
and
a piston disposed within the cartridge to push against the inner chamber.
7. The cartridge of claim 6, further comprising an opening in the rear of the
cartridge to allow one of atmospheric and positive air pressure to enter the
cartridge.
8. An apparatus comprising:
a cartridge carrier having an upper portion and a lower portion, the
upper portion hingeably coupled to the lower portion;
a cartridge removably coupled to said cartridge carrier;

a front air seal and a rear air seal, the front and rear air seals coupled to said lower portion of the cartridge carrier;

a first vent coupled to said lower portion of the cartridge carrier to pass air to said cartridge carrier; and

a second vent coupled to said lower portion of the cartridge carrier to pass air from said cartridge carrier.

9. The apparatus of claim 8, further comprising a motor coupled to a pump, said pump is coupled to the cartridge carrier to supply one of air and gas stream to the cartridge.

10. The apparatus of claim 9, further comprising at least one battery coupled to the motor to power the pump.

11. The apparatus of claim 8, wherein the cartridge includes a spray tip, the cartridge and the spray tip are molded together as one unit.

12. The apparatus of claim 8, the cartridge further comprising:
a nozzle disposed at one end of the cartridge;
an inner chamber to hold a medium to be dispersed from the cartridge;
and
a piston disposed within the cartridge to push against the inner chamber.

13. The apparatus of claim 8, the cartridge further including a spreader plug removably coupled to a spray tip.

14. The apparatus of claim 11, the cartridge further including a hollow tube portion including a plurality of thru-holes, wherein a powdered media is drawn into the hollow tube portion by air flow and exits thru the spray tip.

15. The apparatus of claim 11, the cartridge further including a plurality of o-ring seals coupled to a needle valve, wherein the needle valve manually triggers an amount of media flow through the spray tip.

16. The apparatus of claim 9, the pump including a helical fan blade.

17. The apparatus of claim 9, where the pump is a diaphragm pump, the pump coupled to a gear reduction device.

18. The apparatus of claim 9, where the pump is a triplex pump, the pump coupled to a gear reduction device.
19. A cartridge comprising:
a nozzle disposed at one end of the cartridge;
a spreader plug removably coupled to the nozzle;
an inner chamber to hold a medium to be dispersed from the cartridge;
and
a piston disposed within the cartridge to push against the inner chamber.
20. A cartridge comprising:
a nozzle disposed at one end of the cartridge;
an inner chamber to hold a powdered medium to be dispersed from the cartridge, the inner chamber including a hollow tube portion having a plurality of thru-holes, wherein the powdered medium is drawn into the hollow tube portion by air flow and exits thru the nozzle.
21. A cartridge comprising:
a nozzle disposed at one end of the cartridge;
an inner chamber to hold a medium to be dispersed from the cartridge;
a plurality of o-ring seals coupled to a needle valve disposed within the chamber; and
a piston disposed within the cartridge to push against the inner chamber, wherein the needle valve manually triggers an amount of media flow through the nozzle.
22. A system comprising:
a housing having a cartridge loading portion and a battery loading portion, including:
a cartridge carrier having an upper portion and a lower portion, the upper portion hingeably coupled to the lower portion;
a cartridge removably coupled to said cartridge carrier;
a front air seal and a rear air seal, the front and rear air seals coupled to said lower portion of the cartridge carrier;
a first vent coupled to said lower portion of the cartridge carrier to pass air to said cartridge carrier;

a second vent coupled to said lower portion of the cartridge carrier to pass air from said cartridge carrier; and

a motor coupled to a pump, said pump is coupled to the cartridge carrier to supply one of air and gas stream to the cartridge.

23. The system of claim 22, further comprising at least one battery coupled to the motor to power the pump.

24. The system of claim 22, wherein the cartridge includes a spray tip, the cartridge and the spray tip are molded together as one unit.

25. The system of claim 22, the cartridge further comprising:
an inner chamber to hold a medium to be dispersed from the cartridge;
and
a piston disposed within the cartridge to push against the inner chamber.

26. The system of claim 25, the cartridge further including a spreader plug removably coupled to the spray tip.

27. The system of claim 25, the cartridge further including a hollow tube portion including a plurality of thru-holes, wherein a powdered media is drawn into the hollow tube portion by air flow and exits thru the spray tip.

28. The system of claim 22, the cartridge further including a plurality of o-ring seals coupled to a needle valve, wherein the needle valve manually triggers an amount of media flow through a spray tip.

29. The system of claim 22, the pump including a helical fan blade.

30. The system of claim 22, where the pump is a diaphragm pump, the pump coupled to a gear reduction device.

31. The system of claim 22, where the pump is a triplex pump, the pump coupled to a gear reduction device.

32. A system comprising:
a housing including:

means for replacing a removable cartridge from the housing;
a front air seal and a rear air seal, the front and rear air seals
coupled to a cartridge carrier;
means for passing air to said cartridge carrier;
means for passing air from said cartridge carrier; and

means for supplying one of air and gas stream to the cartridge.

33. The system of claim 32, wherein the means for supplying one of air and gas stream includes a motor coupled to a pump, said pump is coupled to the cartridge carrier.

34. A cartridge comprising:
a nozzle disposed at one end of the cartridge;
an inner chamber to hold a medium to be dispersed from the cartridge;
and
means for dispersing said medium from the cartridge.

35. A cartridge comprising:
a nozzle disposed at one end of the cartridge;
an inner chamber to hold a powdered medium to be dispersed from the cartridge, and
means for dispersing the powdered medium thru the nozzle.